

2.4 Traffic and Transportation/Pedestrian and Bicycle Facilities

2.4.1 Regulatory Setting

The Department, as assigned by the Federal Highway Administration (FHWA), directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of Federal-aid highway projects (see 23 Code of Federal Regulations [CFR] 652). It further directs that the special needs of the elderly and the disabled must be considered in all Federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR 27) implementing Section 504 of the Rehabilitation Act (29 United States Code [USC] 794). The FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to Federal-aid projects, including Transportation Enhancement Activities.

2.4.2 Affected Environment

State Route 74 (SR-74), also known as Ortega Highway, has a southern terminus at Interstate 5 (I-5) within the City of San Juan Capistrano and connects coastal cities in South Orange County to Interstate 15 (I-15), the Cities of Lake Elsinore and Murrieta, and beyond. Within the project limits, SR-74 traverses a rural area and is an undivided highway that consists of mountainous terrain, hilly, steep cut-and-fill slopes, and non-standard geometric features including horizontal curve radii, shoulder widths, and sight distances. The highway has 12-foot (ft) lanes within the project limits and unpaved or non-standard shoulders in various locations. Due to its unique location and surrounding topography, SR-74 does not have a parallel alternate facility in close proximity. State Route 91 (SR-91) traverses the coast inland to areas of Riverside and San Diego Counties, approximately 20 miles north of SR-74. Similarly, State Route 76 (SR-76) connects I-5 in the Oceanside/Camp Pendleton area to I-15

and State Route 79 (SR-79) in inland San Diego County, approximately 30 miles south of SR-74.

Average Annual Daily Traffic (AADT) data from 2016 contained in Table 1.1 of Chapter 1 indicate that traffic volume traveling the roadway varies from approximately 10,300 to over 10,500 within the project limits, with truck percentages ranging from 3.2 percent near the western limits of the project to 7.35 percent near the Orange/Riverside County line. SR-74 is generally used by recreational users to access the Santa Ana Mountains, as well as used by commuters from Riverside County as an access point for job centers within Orange County. Traffic is also expected to increase on SR-74 from anticipated regional growth, local development, and increased recreational travel in most segments. A growth factor was applied to the ahead peak-hour volume of 1,200 vehicles on the project segment to determine an estimate of future traffic volumes. For the Opening Year 2024, peak-hour volumes are projected to be 1,284, and for the Horizon Year 2044, peak-hour volumes are projected to be 1,536.

Based on traffic collision data contained in Table 1.2 and collected between either the five-year period from 2007–2012 or the three-year period from 2009–2012, most segments of SR-74 within the project limits experience a higher than average accident rate than the statewide rate for similar facilities, for both total accidents and injuries and fatalities. One segment, between Post Mile (PM) 11.5 and PM 12.3, also has a higher rate of fatalities than average rates for similar facilities. During both data collection periods, “hit object” collisions and “overturn” collisions were the primary types of collisions that occurred within the project limits, and additionally, collisions occurred at a higher rate during rainy wet pavement conditions.

There are no designated pedestrian or bicycle facilities present on SR-74 within the project limits; however, bicycle access to SR-74 is not prohibited. Some segments of SR-74 outside the project limits do contain bicycle and pedestrian facilities consisting of standard 4–6 ft sidewalks with standardized at-grade signalized crossings, and improvements to those facilities are currently being planned and constructed as funding becomes available. There is a Class II bicycle facility along eastbound SR-74 outside the project limits from the San Juan Capistrano city limits to Antonio Parkway. No designated public bus routes travel the segment of SR-74 within the project limits.

2.4.3 Environmental Consequences

2.4.3.1 Temporary Impacts

Build Alternative (Preferred Alternative)

The improvements associated with construction of the Build Alternative may have temporary impacts on traffic operations along SR-74. Project construction activity would require advance-warning signage placed well ahead of both construction zones in locations where vehicles may still make detours if needed. These advance-warning signs should be placed west of Antonio Parkway near the San Juan Capistrano city limits and east of I-15 along SR-74 near Lake Elsinore.

Closures would be implemented as needed during off-peak traffic periods. The peak periods where closures would be avoided include the hours between 5:30 a.m. and 9:30 a.m. and 3:00 p.m. and 6:30 p.m., Monday through Friday. Partial closures would leave one travel lane not less than 10 ft in width open for use by both eastbound and westbound directions of travel, with reverse control implemented in order to serve both directions of traffic. Although typical construction operations will occur during non-peak traffic periods, construction of fill slopes will require long-term one lane closures at certain locations within the project limits.

Project construction activity may require intermittent detours due to required full closures of SR-74. The detour routes during times of required closures would require east- and westbound vehicular traffic to utilize I-5 and I-15 to access routes parallel to SR-74 (SR-91 to the north or SR-76 to the south). Northbound detours from SR-74 would be approximately 20 miles for traffic on I-15 to access SR-91 and 30 miles for traffic on I-5 to access SR-91. Southbound detours from SR-74 would be approximately 30 miles for traffic on I-15 to access SR-76 and 25 miles for traffic on I-5 to access SR-76. Based on the AADT data information given in Section 2.4.1 above, a worst-case all-day closure of SR-74 would divert up to 10,500 vehicles per day to either SR-91 to the north, SR-76 to the south, or some combination of this amount of traffic between the two routes. The limited full closures of SR-74 may have temporary adverse impacts on traffic operations along I-5, I-15, State Route 55 (SR-55), SR-91, and SR-76 due to detoured traffic. A Transportation Management Plan (TMP) would be prepared as discussed in Project Feature PF-T-1, below, to address and minimize construction impacts related to detours and closures, including coordination with the respective agencies and service providers.

PF-T-1 A Final Transportation Management Plan (TMP) will be developed in detail during final design and will be implemented by the construction contractor during project construction to address short-term traffic circulation and access effects during project construction. Specifically, during final design, a qualified traffic engineer will prepare the TMP, which will include, but not be limited to, the elements described below to reduce traveler delays and enhance traveler safety during project construction. The TMP will be approved by the California Department of Transportation (Caltrans) District 12 during final design and will be incorporated into the plans, specifications, and estimates for implementation by the construction contractor.

The purpose of the TMP is to address the short-term traffic and transportation impacts during construction of the project. The objectives of the TMP consist of the following:

- Maintain traffic safety during construction
- Effectively maintain an acceptable level of traffic flow throughout the transportation system during construction
- Minimize traffic delays and facilitate reduction of the overall duration of construction activities
- Minimize detours and impacts to pedestrians and bicyclists
- Foster public awareness of the project and related transportation and traffic impacts
- Achieve public acceptance of construction of the project and the TMP measures

The TMP will contain, but not be limited to, the following elements intended to reduce traveler delay and enhance traveler safety, including a public information/awareness campaign, traveler information strategies, incident management, construction strategies, demand management, and alternate route strategies. These elements will be refined during final design and incorporated into the TMP for implementation by the construction contractor during project construction.

As there are no dedicated pedestrian or transit facilities within the project limits, no temporary construction-related impacts to pedestrians or buses would occur.

Similarly, there are no dedicated bicycle facilities within the project limits, although bicyclists are not prohibited from accessing SR-74 within the project limits. Partial and full closures and detours would temporarily impact bicyclists traversing the portion of SR-74 within the project limits in the same manner that the motoring public would be affected. The TMP would address detours for bicyclists as well as motorists. With implementation of the TMP as a project feature, temporary traffic-related impacts associated with construction activities would be reduced.

No Build Alternative

Under the No Build Alternative, the proposed improvements would not be built. As a result, the No Build Alternative would not result in temporary impacts related to traffic and circulation.

2.4.3.2 Permanent Impacts

Build Alternative (Preferred Alternative)

The proposed project consists entirely of safety improvements to SR-74 as opposed to capacity or operational improvements. As such, existing and future SR-74 traffic operations are not anticipated to be affected by implementation of the project. The safety improvements are intended to reduce future traffic incidents by including a 1 ft safety edge placed at pavement edges for reconstructed shoulder, high friction surface treatment (HFST) to address wet-pavement collisions, Midwest Guardrail System (MGS) to prevent errant vehicles from entering the San Juan Fire Station, five safety lights along the horizontal curve at the San Juan Fire Station, drainage improvements at the shoulders to minimize off-site runoff onto the pavement and reduce hydroplaning, and replacement of curve warning signs, traffic striping, and rumble strips. As the project would not affect bicycle, pedestrian, or transit facilities, no permanent impact would occur. Bicyclists would be able to access SR-74 in the same manner after project construction.

No Build Alternative

Under the No Build Alternative, the proposed improvements would not be built. As a result, the No Build Alternative would not result in permanent operational impacts related to traffic and circulation. However, the safety improvements proposed under the project would not be realized, and the segment of SR-74 would continue to experience higher-than-average collision rates.

2.4.4 Avoidance, Minimization, and/or Mitigation Measures

With incorporation of Project Feature PF-T-1 described above, no avoidance, minimization, and/or mitigation measures are necessary.